

Table 10. Cotton insect loss estimates for Florida during 2020.

Pest	Acres Infested	% Acres Infested	Acres Treated	% Acres Treated	# of apps /acres treated	Cost of 1 application	% loss /acre infested	# of apps/ total acres	cost/acre	overall % reduction	Bales lost / pest	Loss + cost	Loss + cost/acre	% Total Loss+Cost
Bollworm/Budworm	95,000	100%	28,500	30.0%	1.0	\$10.00	0.80%	0.30	\$3.00	0.80%	1,742	\$811,781	\$8.55	6.5%
Beet Armyworm	19,000	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	19,000	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	1,900	2%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	1,900	2%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	9,500	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	95,000	100%	80,750	85.0%	1.5	\$10.00	3.00%	1.28	\$12.80	3.00%	6,531	\$3,190,974	\$33.59	25.5%
Cotton Fleahopper	9,500	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Stink Bugs (other than brown stink bug)	95,000	100%	85,500	90.0%	2.0	\$10.00	2.00%	1.80	\$18.00	2.00%	4,354	\$3,026,650	\$31.86	24.2%
Brown Stink Bug	95,000	100%	85,500	90.0%	1.5	\$10.00	1.00%	1.35	\$13.50	1.00%	2,177	\$1,940,825	\$20.43	15.5%
Clouded Plant Bug	23,750	25%	14,250	15.0%	1.0	\$10.00	0.08%	0.15	\$1.50	0.02%	44	\$48,931	\$0.52	0.4%
Leaf Footed Bugs	85,500	90%	57,000	60.0%	1.0	\$10.00	1.00%	0.60	\$6.00	0.90%	1,959	\$1,105,402	\$11.64	8.8%
Spider Mites	61,750	65%	23,750	25.0%	1.2	\$12.00	0.00%	0.30	\$3.60	0.00%	0	\$222,300	\$2.34	1.8%
Thrips	95,000	100%	66,500	70.0%	1.0	\$8.00	0.00%	0.70	\$5.60	0.00%	0	\$532,000	\$5.60	4.3%
Aphids	95,000	100%	61,750	65.0%	1.0	\$10.00	0.00%	0.65	\$6.50	0.00%	0	\$617,500	\$6.50	4.9%
Grasshoppers	47,500	50%	14,250	15.0%	1.0	\$10.00	0.00%	0.15	\$1.50	0.00%	0	\$71,250	\$0.75	0.6%
Banded Winged Whitefly	9,500	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	76,000	80%	47,500	50.0%	1.0	\$25.00	0.00%	0.50	\$12.50	0.00%	0	\$950,000	\$10.00	7.6%
Boll Weevil	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								7.78	\$84.50	7.72%	16,807	\$12,517,613	\$131.76	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results	
State	Florida	Total Acres	95,000		Total	Per Acre
Region	Southeast	Total Bales Harvested	148,438		Foliar Insecticide Costs	\$8,027,500
Year	2020	Total Bales Lost to Insects	16,807		Seed Treatment Costs	\$1,368,000
Total Acres (Upland)	95,000	Percent Yield Loss	7.7%		In-Furrow Costs	\$769,500
Yield / Acre (Upland)	750	Yield w/o Insects (lb/acre)	813		Scouting Costs	\$475,000
Price / lb	\$0.63	Av. # Applications	7.78		Eradication Costs	\$190,000
yield potential (lb/acre)	1,100	Total Bales lost (all factors)	131,104		Bt Cotton	\$3,325,000
Acres (Pima)	0	Total % yield Loss	60.2%		Total Costs	\$14,155,000
Yield / Acre (Pima)	0	Transgenic Cotton (arthropods) (# acres)	95,000		Yield Loss to Insects	\$5,082,437
% Acres Scouted	50%	Boll Weevil Eradication (# acres)	95,000		Total Losses + Costs	\$19,237,437
Fee / Scouted Acre	\$10.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	# Scouted Acres	47,500			
% acres Transgenic (Bt) Cotton	100%	Seed Treatments (arthropods) (# acres)	76,000			
Cost/treated acre (Bt) Cotton	\$35.00	In-Furrow Applications (# acres)	28,500			
% acres with seed treatment	80%	Applications by Air (acres)	28,500			
Seed trt. cost/ treated acre	\$18.00	Applications by Ground (acres)	95,000			
% acres with in-furrow	30%	No. acres with no foliar insecticide applications	0			

Table 10. Cotton insect loss estimates for Florida during 2020, continued.

Upland Cotton	% Acres	# Acres	Total cost/acre	Bt cost/acre	% acres treated for BW/TBW	# acres treated for BW/TBW	# apps for BW/TBW
Bollgard II	85.0%	80,750	\$96.00	\$35.00	7%	5,653	1.0
Bollgard III	10.0%	9,500	\$90.00	\$35.00	0%	0	0.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	5.0%	4,750	\$90.00	\$35.00	0%	0	0.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	0.0%	0	\$0.00	\$0.00	0%	0	0.0
Total Bt	100.0%	95,000	\$95.10	\$35.00	6.0%	5,653	0.06
Herbicide Traits Only	0.0%	0	\$85.00	-	0%	0	0.0
Conventional	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	95,000	\$95.10	\$35.00	6.0%	5,653	0.06
Non Upland Cotton							
Pima	0.0%	0	\$0.00	-	0%	0	0.0
Other	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		95,000	\$95.10	-	6.0%	5,653	0.06